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Readiness is a major element in Navy Medicine with medical treatment facilities possessing unique operational missions. Naval Hospital, Jacksonville, Florida (NHJAX) recently became the "ready Fleet Hospital" for the East Coast. Additionally, NHJAX is responsible for having a Medical Augmentation Team ready to assist the USS NASSAU (LHA-4) during operational commitments and contingencies. Assignment to these platforms, as well as other deployment requirements, have the NHJAX staff focusing on wartime readiness and simultaneously maintaining the highest standards while carrying out the peacetime mission providing patient care.
In August of 2000, the Deputy Surgeon for the United States Navy tasked many elements of the Bureau of Medicine and Surgery (BUMED) with determining the cost of readiness. According to the BUMED Readiness and Resources Divisions, it is the overall command impact of meeting readiness requirements--not simply the dollar cost that must be evaluated. Toward this end, this study evaluated the impact of readiness training on several organizational aspects to include: staff and patient satisfaction, as well as, access to care.

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The Impact of Maintaining a Wartime Readiness Posture

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U. S. Army-Baylor University Graduate Program in Health Care Administration

A paper submitted in partial fulfillment of the requirements for the Administrative Residency

15 November 2001

ABSTRACT

Readiness is a major element in Navy Medicine with medical treatment facilities possessing unique operational missions. Naval Hospital, Jacksonville, Florida (NHJAX) recently became the "ready Fleet Hospital" for the East Coast. Additionally, NHJAX is responsible for having a Medical Augmentation Team ready to assist the USS NASSAU (LHA-4) during operational commitments and contingencies. Assignment to these platforms, as well as other deployment requirements, have the NHJAX staff focusing on wartime readiness and simultaneously maintaining the highest standards while carrying out the peacetime mission providing patient care.

Over the past 18 months, NHJAX lost over 480 days of productivity in order to meet various training requirements. The requirements included two different evolutions at the Fleet Hospital Operations Training Center (FHOTC) in Camp Pendleton, California. One of the deployments to FHOTC was for general training and the other was for an Operational Readiness Evaluation; a requirement needed to maintain "ready Fleet Hospital" status. One final deployment exercise was a critical element in the deployment readiness of the Medical Augmentation Team.

In August of 2000, the Deputy Surgeon for the United States Navy tasked many elements of the Bureau of Medicine and Surgery (BUMED) with determining the cost of readiness. According to the BUMED Readiness and Resources Divisions, it is the overall command impact of meeting readiness requirements--not simply the dollar cost that must be evaluated. Toward this end, this study evaluated the impact of readiness training on several organizational aspects to include: staff and patient satisfaction, as well as, access to care.

In conducting this study, changes in patient care workload was assessed during two

readiness training periods. Changes in levels of patient satisfaction were also assessed during the same two training periods, as was staff satisfaction.

Study results indicate that the deployment training had no adverse effect on the overall satisfaction of the non-deployed staff or on patient access to care. The study suggested that access actually improved during the study periods therefore, patient satisfaction was not affected. This improvement is believed to be the result of the appropriate use and integration of reserve forces during the periods of deployment training.

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The Cost and Impact Associated with Readiness

INTRODUCTION

Readiness is a major element in Navy medicine, with medical treatment facilities

(MTF's) possessing unique operational missions. In October of 2000, Naval Hospital

Jacksonville, Florida (NHJAX) and the Fleet Hospital became the "ready fleet hospital" for the

East Coast. Additionally, NHJAX is currently responsible for having a Medical Augmentation

Team ready to assist the USS Nassau (LHA-4) if the need arises. Assignment to these platforms,

as well as other deployment requirements, have the NHJAX staff focusing on wartime readiness

and simultaneously maintaining the highest standards while carrying out the peacetime mission

providing patient care.

In March of 2000, over two hundred staff members from NHJAX were sent to the Fleet

Hospital Operations Training Center (FHOTC) in Camp Pendleton, California for readiness

training. In August of the same year, more than 80 staff members were sent to the USS Nassau in

Norfolk, Virginia for deployment training, and in October, the Fleet Hospital platform returned

to Camp Pendleton for an Operational Readiness Exercise (ORE) to determine the

readiness/deployment capability of the unit. In a three-week period of time, NHJAX lost over

480 days of productivity in order to achieve a wartime readiness posture. Irrespective of

operational or training requirements, the hospital is required to maintain patient care standards.

In order to accomplish this, reserve units were tasked with filling hospital billets vacated for

readiness training.

As recently as August of 2000, the Deputy Surgeon General for the Navy tasked the

readiness department (MED 027) of the Bureau of Medicine and Surgery (BUMED) with

identifying the cost of readiness. Additionally, the Commanding Officer has asked the NHJAX

staff to indicate how the deployment training conducted that calendar year affected the staff, the patients, and the budget. There are many areas to be evaluated when considering the impact of readiness on a particular unit or command. These areas include:

Costs. What is the dollar cost of sending approximately 500 people to various operational platforms for training? What is the dollar cost of recalling the reserve component to backfill the facility? What is the dollar cost of providing the Fleet Hospital platform with all the necessary uniform parts and equipment? What is the time cost of sending approximately 500 people to various platforms for training? Who is responsible for funding the deployment training?

Staff. What is the impact on the morale on the remaining staff during training evolutions? Are there quality of life issues that need to be addressed during deployment exercises? What is the impact on the morale of the staff required to participate in deployment training? How does the transition from permanent active duty staff to reservist affect the day to day operations of the facility? Is the staff required to work longer hours during deployment training? What are the staffing requirements for Fleet Hospital?

Patients. What is the impact on patient satisfaction during deployment training? Are there access to care issues during deployment training? What effect does deploying specialty care professionals have on the access to care standard? Does deployment of the specialty care providers affect the effectiveness and efficiency of the delivery of health care?

Training/Readiness. Is the peacetime mission preparing the service member for deployment? Is the day to day operation of NHJAX enhancing the skills needed for Fleet Hospital deployment? How is deployment training different from the ORE? (Medical Readiness is discussed under another heading in the introduction) The cost information for

this project was gathered from a variety of sources to include: Director, Resources

Management NHJAX, Plans, Operations, and Medical Intelligence Officer, NHJAX,

Reserve Liaison Officer, NHJAX and a representative from MED 027. The staff

information was gathered by conducting random interviews as well as formulating a staff

survey. The patient care issues were gathered through patient satisfaction surveys and a

local Pulse Point survey conducted during times of staff deployment. Additionally, the

Managed Care department provided information regarding appointment wait times (access

to care issues) as well as network (TRICARE) use during deployment exercise. Historical

data exists from past exercises, and there was a window of opportunity to collect data that

is current for comparison purposes. This information assisted in determining if the facility

maintained access standards as well as improved on patient satisfaction issues. The

training/readiness issues were evaluated using various research articles and the readiness

sections from the past five Annual Defense Reports.

STATEMENT OF THE PROBLEM OR QUESTION

As mentioned above, the subject of readiness, to include cost and impact is being

discussed at all levels within the Department of Defense (DoD). At an offsite

meeting, the Executive Steering Council at NHJAX identified access to care as its number

one priority, with readiness close behind. The purpose of this project is to investigate and

report on the readiness efforts of the command and to determine if readiness-training

requirements result in a negative impact upon the command. Specific organizational

aspects to be examined in this study include: 1) the dollar cost to the command of readiness

clothing, equipment and training, 2) changes in patient satisfaction levels during periods of

staff deployment due to readiness training, 3) changes in hospital staff satisfaction levels

during periods of staff deployment due to readiness training, changes in patient access

levels during periods of staff deployment due to readiness training.

LITERATURE REVIEW

The number one priority of the DoD is maintaining the readiness and sustainability of

United States military forces. The U. S. must have highly capable forces, prepared to respond to

the diverse demands of a post-Cold War era in a rapid fashion. Readiness is "the overall ability

of units to arrive on time where needed and be prepared to effectively carry out assigned

missions" (Annual Defense Report, 1996). This ability is a function of having the right

equipment; supplies, logistics, intelligence and experienced people with the appropriate skills to

accomplish assigned tasks. The operational readiness division under the Chief of Naval

Operations (N931) defines readiness as "the ability of US military forces to fight and meet the

demands of the national military strategy" (N931). Readiness is the synthesis of two distinct but

interrelated levels:

a. readiness--The ability to provide capabilities required by the combatant commanders to

execute their assigned missions. This is derived from the ability of each unit to deliver the

outputs for which it was designed.

b. joint readiness--The combatant commander's ability to integrate and synchronize ready

combat and support forces to execute his or her assigned missions. Maintaining readiness has

posed the DoD with many challenges; retention/recruitment of high quality personnel, adequate

funding, training, and medical readiness.

Personnel

From a personnel standpoint, it appears that the retention rate of DoD forces has

risen slightly but steadily from 1994 (Appendix A). While these figures address a global

retention effort, certain skill specialties such as pilots, machinists, and information technology specialists' merit increased attention. Other DoD retention efforts are in place and include higher pay raises, restoration of the 50% base pay retirement as well as other changes in the pay table. In addition to the compensatory changes, the DoD is evaluating quality of life issues with a major focus on deployments. While deployments are a part of the military lifestyle, the number and frequency is rising at a time when the size and permanent forward presence of the military has declined.

Quality of life programs support retention, and therefore readiness, in three ways: first, quality of life helps the DoD recruit personnel by offering incentives for education, healthcare, career advancement, and retirement. Second, quality of life issues provide assurance to service members that their families will be taken care of during deployments. Third, quality of life issues aid in retention. As previously discussed, retention of the right personnel is critical. According to the Annual Defense Report (ADR) from 1997, it takes resources and time to develop and sustain ready forces. "Readiness is cumulative. It takes twenty years to develop senior military leaders, more than ten years to build a modern infrastructure, five to ten years to develop and field technologically superior equipment, and one to two years to develop a sustainment program to provide trained and ready units" (Annual Defense Report, 1997).

To further address quality of life from a deployment viewpoint, the DoD is evaluating the current personnel tempo (PERSTEMPO) for all the services. Each of the services as well as major military mission area has its own tempo of operations making it impossible to invoke a DoD wide policy regarding tempo. Section 923 of the National Defense Authorization Act is working to establish definitions, standards and data collection

methods. The current policies and methodology for the management of PERSTEMPO and deployment tempo (DEPTEMPO) are as follows:

Army. The Army currently defines PERSTEMPO as the rate of deployment for Army units measured as a percentage. These deployments include operational taskings as well as training deployments. Personnel tempo consists of two components. The first component, deployment tempo, is the percent of time spent on out–of–station operational deployments by a unit, expressed in terms of days. The second component, skill tempo, is the percent of time spent on out–of–station operational deployments by a particular individual military occupational skill and skill level, expressed in terms of days. Army policy requires all units to report DEPTEMPO. If a unit reaches a DEPTEMPO of 120 days, the Chief of Staff of the Army places the unit on a watch list for additional management attention. In addition to the watch list, Army personnel policy directs commanders to provide for a period of stabilization for soldiers following a temporary duty (TDY) or temporary change of station (TCS). To the extent feasible, when soldiers are placed on TDY/TCS for a period of at least 30 consecutive days, they will be provided a period of stabilization equal to one month at home for each month deployed.

The Army measures OPTEMPO as a resource gauge to indicate the amount of miles or operating hours required to execute a unit commanders training strategy to achieve a given specific readiness level.

Navy. In the Navy, PERSTEMPO is defined as time away from homeport tracked at the unit versus the individual level. A unit away from homeport for 56 days consecutively is considered deployed. A unit's total days out of homeport during the reporting period divided by the total number of days in the reporting period yields personnel tempo. The Navy uses three guidelines in managing personnel tempo: a maximum deployment of six months, port to port; a

minimum turn–around ratio of two to one between deployments; and a minimum of 50% time in homeport for a unit over a five–year cycle. The Chief of Naval Operations (CNO) personally approves personnel tempo exceptions to these guidelines. Units away from homeport more then 55% of the time for a given three–year period are placed on the CNO's watch list for close monitoring.

The Navy uses an OPTEMPO measure to address fuels budgeting. Operating tempo is measured in steaming days, flying hours, or more generally equipment usage time. Days in port do not count against operating tempo.

Marine Corps. The Marine Corps tracks PERSTEMPO at the unit versus the individual level. The Marines use the term DEPTEMPO in lieu of PERSTEMPO. DEPTEMPO is defined as the percentage of time in a given annual period that a unit, or element of the unit, supports operations or training away from its home base or station for a period of 10 consecutive days or greater. DEPTEMPO rates are calculated using the unit deployment data entered into the Marine Corps Training and Exercises Employment Plan. These data capture past, present, and projected DEPTEMPO for each Marine Corps unit.

The Marine Corps defines OPTEMPO as the amount of resources expended over a period of time that are devoted to operations and training. Operating tempo is tracked in terms of equipment expenditures (flight hours flown, tank track hours/mile, vehicle miles driven, etc.).

Air Force. The Air Force measures PERSTEMPO as the number of days an individual is away from home. The Air Force considers a day away as any day that a deployed person is not able to sleep in his or her own home, for any reason. Personnel tempo is tracked for individuals by social security number in a database maintained at the Air Force Personnel Center. When an individual departs home station, his or her unit's orderly room is responsible for updating the

Personnel Concepts III personnel data system to reflect the individual's off–station duty status. Once the individual files his or her travel voucher through the Defense Finance and Accounting System, the measured time away from home is cross–checked and validated. Currently, the Air Force desired maximum for PERSTEMPO is that no individual be TDY more than 120 days in any 12–month period. In the past, the Air Force used the term operating tempo to measure equipment activity rates for planning and budgeting purposes. Operating tempo is generally measured in terms of total flying hours or flying hours per crew per month.

Global Military Force Policy. In addition to the individual Service tempo management policies, the DoD currently uses the Global Military Force Policy to establish peacetime prioritization guidelines for Low Density/High Demand (LD/HD) units. LD/HD assets are force elements consisting of major platforms, weapons systems, units, and/or personnel that possess unique mission capabilities and are in continual high demand to support worldwide joint military operations. The Global Military Force Policy was designed to assist senior leaders in developing options for allocating these assets in crises, other contingencies, and long–term joint task force operations. (Annual Defense Report, 2000).

Individual Personnel Tempo (ITEMPO). In October of 2000, the Armed Forces implemented the ITEMPO policy that was mandated by the National Defense Authorization Act (NDAA) for FY 2000. "The deployment (or potential deployment) of a member of the armed forces shall be managed, during any period when the member is a high-deployment days member, by the officer in the chain of command who is the lowest-ranking general or flag officer in that chain of command. That officer shall ensure that the member is not deployed, or continued in a deployment, where the total number of days the member has been deployed would exceed 220 out of the previous 365 days, unless an officer in the grade of general or admiral in

the member's chain of command approves the deployment, or continued deployment"
(NAVADMIN 255). In this section, the term `high-deployment days member' means a member
who has been deployed 182 days or more out of the preceding 365 days.

The real personnel problem is one of recruitment. According to the ADR for 2000, both
the Army and the Air Force fell short of their recruiting goals for 1999. The Navy and Marine
Corps reached their goals but the cost in dollars and effort was greater than in years past.
Additionally, the Navy and Marine Corps were offering signing bonuses in the range of $5,000
to new recruits. While initiatives have been put into place to attract more applicants, the current
trend of the strong national economy is offering service entry age Americans a greater number of
options. The DoD reports that it still recruits the best and brightest candidates, just fewer in
number.

Funding

The second challenge in achieving readiness is to assure the DoD has the right resources
allocated to the right purposes in support of readiness. In 1998, Congress directed all of the
services to provide enough funding in future programs and budgets to ensure that forces were
ready to carry out missions at "acceptable levels of risk" (Annual Defense Report, 1997). To
highlight the magnitude of this priority, the Secretary of Defense authorized the services to
disregard his guidance regarding operational funding in other areas in order to maintain
readiness. However, the ADR of 1997 points out that because contingencies by nature are
unforeseen, the DoD must receive timely funding for these operations.

The total contingency operations costs of $3.2 billion represented approximately 1.3% of
the total $252 billion FY 1996 defense budget. Contingency costs normally occur within the
operation and maintenance (O&M) appropriations and must be absorbed by O&M appropriations

unless they can be offset from investment appropriations (i.e., appropriations for procurement or research and development) via a reprogramming action which requires prior approval by Congress before funds may be realigned. Since most of the military personnel and Operation and Maintenance appropriations, comprising nearly 63% of the defense budget, are used to support day-to-day fact-of-life requirements and maintain high readiness postures, investment accounts are the most likely source of funds to be reprogrammed to support contingency operations.

Another dimension of the problem with funding contingencies is the timing of the operations; the later an operation occurs during the fiscal year, the less flexibility the DOD has in reprogramming. The bottom line of the funding reality is that contingencies can decimate the readiness preparedness of the DoD as a whole. By the fourth quarter of the fiscal year, the only places from which funds can be diverted are the readiness accounts that support training and maintenance.

Additionally, funding of contingencies from O&M budgets can delay training or maintenance schedules and result in lost opportunities. The key resource lost while waiting for supplemental funding is time. Dollars arriving late in the fiscal year cannot buy back six months of missed range training or put a delayed maintenance program back on track quickly.

The DoD's challenge, then, has been to develop mechanisms to provide alternative funding sources without damaging the readiness accounts. In the past, DoD has relied on supplemental appropriations from Congress to fund certain contingencies. Thus, in a fundamental policy change, the Department of Defense has now taken the approach of funding contingency operations on an ongoing basis from within the current program. The DoD is developing alternatives to provide this funding as part of the overall O&M accounts.

The resources in the FY 1998 budget were adequate and provided readiness for

America's armed forces due to the fact that Congress and the public supported the size and allocation of the resources recommended by DoD. Additionally, Congress acted in a timely fashion to supplement or replace resources used by DoD in conducting and executing unbudgeted contingency missions, and DoD was able to replenish the resources consumed in support of forces engaged in unbudgeted contingency missions. Since FY 1998, the DoD has focused on maintaining adequate readiness, specifically the elements of readiness critical to the execution of U.S. defense strategy. DoD has fully funded operating and personnel programs. At the same time, there may be significant risks to readiness as DoD plans are executed. For example, some programs in the O&M appropriations may eventually need more funds. DoD must take care to ensure that reallocating funds for these purposes does not unduly divert resources away from more direct readiness needs and other mission requirements. The DOD must also maintain a balance between current readiness and required increases in procurement and modernization funding in future budgets.

Despite the challenges in precisely projecting U.S. readiness and sustainability needs in uncertain times, the readiness programs and budgets being submitted to Congress represent the best estimate within DoD today of the resources necessary to keep U.S. military forces ready to execute the U.S. National Security Strategy successfully.

Future programs and budgets were developed using the direction provided through prior years' planning. The principal guidance affecting readiness maintains that readiness and sustainability remain the highest resource priority of the DoD and that the Service Chiefs are permitted to reallocate funds to ensure readiness. Additionally, readiness programming should reflect the first-to-fight principle. This requires components to maintain appropriate levels of manning, training, and equipment procurement, distribution, and maintenance for the most

demanding deployment schedules. Increased use of simulations, simulators, and advanced training devices and technologies will be aggressively pursued to increase operational training effectiveness and efficiency for both active and Reserve components, reduce requirements for field training, and aid in planning and programming (Annual Defense Report, 1997).

Training

The DoD training objective is to "ensure that U. S. forces have the highest quality education and training, tailored to needs and delivered cost effectively whenever and wherever required" (Annual Defense Report, 1999). The DoD is pursuing both technological improvements in the training process as well as the possibility of outsourcing training to lower the costs of education and training. Outsourcing efforts include the use of the private sector to apply advanced learning technology and distance learning to provide more efficient and effective training. Additionally, DoD training will involve new methods of learning through the use of information technology to provide an integrated global network of knowledge resources. According to multiple Annual Defense Reports, technologically advanced training will be more distributed, adaptive and tailored to operational missions and tasks.

In today's joint task force environment, it is paramount to live by the motto "train like we fight." However, it is impossible to mobilize major capability sets from all of the services to one training area. To enhance joint training, the Office of the Secretary of Defense, the Joint Staff, and the Service Chiefs are coordinating efforts to create an integrated plan for the use of models and simulation in support of joint and inservice training. A training council was established with the objective to develop and implement training simulator plans that represent the needs and interests of a particular community. This effort will provide a central focus for coordinating simulation-training plans across DoD, provide high-level user requirements to guide DoD

research and development efforts, and greatly increase the cost-effectiveness of DoD investments by eliminating unnecessary duplication while improving the Services' ability to share common resources.

A major focus of the Training Council is the Joint Simulation System (JSIMS) program. The JSIMS program far exceeds existing training technology. It encompasses the full range of missions across all phases of military operations. JSIMS provides better simulations for joint training across the force by using efficient simulations tailored to meet training needs. It shares a common architecture with other training simulations, as well as analytical and acquisition-related models. Finally, it interfaces with actual command, control, communications, computers, and intelligence (C4I) functions and equipment in the field. DoD has established a joint program office for management of JSIMS and is in the process of providing staffing from each Service. A new program element has been established for the core JSIMS developments and efforts are underway to coordinate related Service activities. JSIMS employs the DoD High Level Architecture (HLA) for Modeling and Simulation. As a framework, the HLA purpose is to reduce costs of simulation interoperability; and thereby encourage broader use of a given DoD simulation investment. JSIMS consists of Service, Agency, and Joint models; a Synthetic Natural Environment; and other applications and tools constructed to comply with HLA requirements. Models, representing joint land, maritime, air/space, and intelligence agency domains, interoperate in a joint synthetic battlespace (JSB) creating an operational environment that is coherent across the three levels of war - tactical, operational, and strategic; synchronized between types of events, and realistic in the context of the specific training scenario. JSIMS is also designed to reduce the number of personnel currently required to operate and control similar simulation based training. The final product of the JSIMS development will be a complete,

accredited, interactive JSB for training strategic-national joint tasks and Joint and Service tactical tasks in all phases of operations: mobilization, deployment, employment, sustainment, and redeployment (JSIMS Homepage).

The DoD has made a priority of exploiting enhanced modeling and simulation through distributive technology. The DoD policy for joint readiness includes proactive application of simulation technologies in the areas of joint training, exercises, and readiness monitoring. The coordinated use of simulation and C4I systems design will allow for the distribution of training support while reducing training costs. The DoD Modeling and Simulation Master Plan is being amended with a definitive description of the requirements, plans, and programs to support joint and interservice training. In addition, DoD is pursuing development of better modeling methods to improve U.S. capability to predict the interaction of forces and reduce the fog and friction of war. This coordinated effort will increase efficiency and interoperability, as well as improve cost efficiency, through more efficient utilization of the simulation technology.

Finally, the focus on unit training needs to be re-energized. Evolutions such as dock trails aboard the USS Nassau, and Fleet Hospital training are essential in order to maintain readiness. It is during unit training that individuals become cohesive teams and are able to complete mission essential tasks. As the push for unit training continues, and the services continue to place special emphasis to the first deployed and forward-deployed units, there is a growing concern that service peacetime training is not in keeping with the wartime mission.

Medical Readiness

The non-medical entities of the military measure medical readiness by the percentage of troops that are medically deployable. Units are tasked with ensuring that immunizations, physical exams, etc. are all current. For the medical community, it is a much greater task. Just as the line

communities need to be operationally ready, the medical department needs to be ready to take medical care to the deployed service member. Medical readiness is "the ability to mobilize, deploy and sustain field medical services and support for any operation requiring military services. To maintain and project the continuum of health care resources required to provide for the health of the force, and to operate in conjunction with beneficiary health care" (Medical Readiness Strategic Plan 1995-2001). The Military medical departments must develop, enhance and sustain coordinated and synchronized policies, doctrine and training that facilitate medical planning, resourcing, and execution of joint and combined operations. Recent changes in the foreign and domestic policy of the United States have significant impact on the defense medical community. These policies, coupled with budget and personnel reductions in the armed forces, challenge the Defense Department's ability to successfully accomplish the primary military medical mission: "to provide and maintain readiness to provide medical services and support to the armed forces during military operations" (Medical Readiness Strategic Plan 1995-2001). The Surgeon General of the Navy, specifically the Medical Resources, Plans and Policy Division (N931), in keeping with the mission of the Chief of Naval Operations: "maintain, train and equip combat-ready Naval forces capable of winning wars, deterring aggression and maintaining freedom of the seas"(Chief, Naval Operations homepage), uses a Medical Analysis Tool (MAT) to determine the medical requirements needed to deploy a ready unit. The MAT analyzes information such as disease or non-battle injuries (DNBI) rates, effectiveness of opposing forces and length of stay in the area of operation. The last element considered is enemy weaponry, especially weapons of mass destruction. The final report provides the area commanders with the total number of beds, pounds of supplies, units of blood and number of replacements needed to effectively execute a mission.

Medical readiness, the Military Health System's primary focus, encompasses protecting and sustaining the health of the force, medical operations in small–scale contingency operations and medical support of the DoD's role in domestic preparedness against weapons of mass destruction. Significant progress has been made in designing a joint health strategy for the 21st century and in implementing efforts to protect the health of the force. DoD developed the Joint Health Service Support Vision 2010–Full Spectrum Health, which supports Joint Vision 2010 and will become the conceptual framework for developing and providing health services to support the warfighting mission into the 21st century.

The DoD continues the implementation of its force health protection (FHP) strategy for sustaining and preserving the health of the force as part of the Force Protection Program. With the ongoing operations, the DoD and Military Services are focusing on improvements in medical record maintenance, disease and non–battle injury surveillance, pre–and post–deployment health assessments, and environmental surveillance. Service members receive briefings and training on how to remain healthy and safe while performing their mission under potentially hazardous environmental, chemical, and biological warfare conditions. The complementary tools of immunization to meet biologic threats posed by the environment or the enemy, and protective clothing and other gear for protection from harmful agents remain critical elements of force health protection. In addition, the DoD established policy for the Services to specifically address the prevention of combat and operational stress in order to enhance service members' readiness and combat effectiveness as well as to protect their physical and mental health.

As mentioned earlier, there is concern that peacetime training is not in keeping with wartime readiness. A recent General Accounting Office (GAO) study revealed that only 19% of the medical eligible beneficiaries are active duty and 27% are active duty dependents. The

remaining 54% is made up of retirees, their dependents and survivors. The Surgeons General of the Military Services and health experts within the DoD contend that providing peacetime care for a largely non-active duty population is the best way to train medical personnel for wartime. They claim that current peacetime training practices also serve other goals, such as helping to attract and retain military physicians, thereby contributing to wartime readiness. Many argue that military Graduate Medical Education (GME) residency training programs aid in recruiting and retention.

Within the limits set by the patient conditions that arise, military medical facilities do in fact provide credible training. Medical centers serve as excellent instructional settings for physician trainees in GME programs, and some small proportion of the training is directly relevant to wartime readiness. But the type of treatment that military facilities provide during peace time, to the extent that it crowds out other operationally specific training, makes it difficult for many resident and staff physicians to prepare adequately for war-related conditions. Examination of U.S. Marine casualty data from Vietnam is informative: almost two-thirds of Marine Corps personnel hospitalized there suffered from DNBI. That is, only a third of hospital admissions were for wounds received while in action. However, the most common wartime DNBI diagnoses do not appear very often in the peacetime workload of military medical centers (GAO 00-10, 1999).

It is very likely that in operations in our current areas of concern, disease will create more casualties than will combat. In previous conflicts in these regions, up to 75% of casualties have been the result of disease (Navy Medicine Strategic Plan, 2000). In such areas as sub-Saharan Africa, malaria infection rates among deployed troops may approach 100%. Also, the human immunodeficiency virus (HIV) is profoundly altering the medical risk to troops worldwide.

These realities could easily render a U.S. force ineffective without a severe engagement ever taking place (BUMED 27).

The value of peacetime practice is even more limited when compared to combat conditions. "None of the fifty most frequent diagnoses seen at military medical centers during peacetime matches a wound received in action" (Naval War College Review, 1997). Without question, a number of patient treatment skills obtained from treating peacetime conditions are directly transferable to managing battle casualties. Still, a comparison of medical conditions resulting from battle injury with those treated at military hospitals and medical teaching centers suggests that peacetime care gives personnel very limited opportunity to develop and practice war-related surgical skills. The conditions treated at military hospitals during peacetime reflect a wider mix of patients, young and old, living in far different circumstances, than would be the case in wartime. A military dependent or retiree typically does not face perils, such as fighting an enemy or operating dangerous equipment, that are routine for military personnel during a conflict.

Of even greater significance is the fact that the priorities exercised in peacetime, as to which patients are treated first, and how, may be at cross-purposes with those used during wartime. Wartime triage, has always created great problems for physicians in the military (GAO 00-10, 1999). In peacetime the most seriously ill receive highest priority for medical attention and logistical support, the opposite may be true in combat, where preservation of fighting strength requires that the most attention be directed toward the lightly wounded who can be returned to duty. Most military physicians are totally unprepared to deal with the harsh realities of wartime triage, where life-and-death decisions must be made that conflict with every ethic they have learned and practiced in peacetime medicine.

NHJAX PLATFORMS

Now that NHJAX is the ready Fleet Hospital for the East Coast, the command must understand what impact this will have on every aspect of the daily requirement to meet both the peacetime and readiness missions. Some major areas of consideration are cost, degree of readiness, staffing requirements necessary to maintain access to care for peacetime beneficiaries during readiness training deployments, and readiness training itself. In addition to the Fleet Hospital mission, NHJAX must continue to support the other readiness missions as directed by N931 such as Operational Medicine and Fleet Marine Force (FMF) support. Even though the Fleet Hospital is its primary platform, NHJAX has the responsibility of providing on time support for the medical needs of the FMF and the USS Nassau, a casualty, receiving and treatment ship (CRTS). The Plans, Operations and Medical Intelligence (POMI) officer and the Human Resources Management Department (HRMD) maintain deployment rosters to ensure an adequate number of trained personnel for each platform.

In August of 2000, the 84 personnel assigned to the USS Nassau were deployed to Norfolk, Virginia for a one-week training evolution. The USS Nassau is a Tarawa class amphibious assault ship designed to embark deploy, and land elements of a Marine Landing Force in an assault by helicopters, landing craft, amphibious vehicles, or any combination of the three. The LHA class ships are designed to operate independently but usually augment other amphibious assault ships in the form of an Amphibious Ready Group (ARG). In addition to the 902 enlisted and 68 officers assigned to the ship, the USS Nassau can carry a complete Marine Battalion Landing Team (approximately 1,800 men) along with the supplies, vehicles and other equipment needed in an assault. The USS Nassau is also capable of supporting Marine Corps AV-8B Harrier Vertical Take-Off and Landing jet for close air combat support in an amphibious

assault.

A secondary mission of the USS Nassau is that of evacuation and civilian disaster relief. Hundreds of tons of relief materials can be carried aboard and delivered to disaster victims within minutes of the ship's arrival. Additionally, fresh water and electricity can be provided from the ship's engineering plant until local services are restored. Finally, the USS Nassau has full medical capabilities and can provide hospitalization for up to 60 patients. There are 45 regular ward beds and 15 intensive care beds. During times when the Marines are not embarked, the ship has the ability to provide temporary hospitalization for up to 300 patients and provide outpatient treatment for hundreds of additional sick or injured. This class of ship is referred to as a CRTS making the USS Nassau not only a ship of war, but also a ship of peace.

The core of the Fleet Hospital platform at NHJAX consists of 240 personnel from all areas of the facility. The remainder of personnel needed to fill the personnel roster comes from the hospital and other East Coast based facilities. To ensure the readiness of this contingency platform, training is conducted at FHOTC and in order to be certified as a ready Fleet Hospital, the unit must pass an ORE. NHJAX sent over 200 personnel to both of these evolutions and the impact will be discussed in a later section.

The overall mission of the Fleet Hospital Program is to provide comprehensive medical support to the fleet and FMF engaged in combat operations. Fleet hospitals complement and expand the afloat medical capabilities of the Fleet and play a critical role in the Navy's doctrine concepts of "Forward. . . From the Sea." Fleet Hospitals are designed to deliver definitive healthcare to stabilize, treat, and rehabilitate patients in theater. The purpose of fleet hospitals is to accomplish the following four objectives:

- Provide resuscitative and definitive medical care to maximize the return to duty of personnel, thus minimizing manpower replacement.

- Provide a rapidly deployable Healthcare Service Support asset to any global location to support combat operations.

- Provide hospital beds required to augment host nation and overseas military medical facilities.

- Reduce troop replacement requirements

Each fleet hospital is designed and outfitted to be assembled by the fleet hospital staff and to be fully operational within 10 days, following site preparation and transport of components and personnel. The staff is deployed on a time-phased schedule in three echelons - air detachment, advance party and main body - each having a specific responsibility in an appropriate hospital assembly sequence.

The 250 and 500 bed fleet hospitals were originally designed to provide combat casualty care for Cold War missions. Although post-Cold War conflicts are not expected to be as massive as once envisioned, they will range from major regional contingencies to peacetime operations and will generate combat casualties. The 100-bed fleet hospital was developed using current scenarios and assets from 250 and 500 bed fleet hospitals. As learned in Operations Desert Shield/Storm and Operation Provide Promise, the majority of the care provided was community medicine, the same care that is provided in U. S. secondary care hospitals. Operational requirements may mandate that the fleet hospital commanding officer and operational commander request additional augmentation personnel, equipment, and supplies. It should be noted that customized, pre-configured packages do not exist in the inventory

The mission of the smallest fleet hospital, the 100 bed, is to provide full resuscitation and emergency wound stabilization surgery to acutely wounded/ill patients. The 100 bed fleet hospitals are equipped and staffed with a medical core package to provide medical support to low intensity conflict peacetime operations. This support consists of receiving and triage,

surgical and non-surgical stabilization, intensive and intermediate nursing care, ancillary services (laboratory, radiology, and pharmacy), dental support, and medical administration.

The mission of the 250 bed and 500 bed Combat Zone (CBTZ) fleet hospitals is to provide full resuscitation and emergency wound stabilization surgery of wounded/ill patients in the rear of the CBTZ with the goal of maximizing return to duty for those not requiring medical evacuation rearward.

The mission of the 500 bed Communications Zone (COMMZ) fleet hospital is to provide more definitive, restorative medical/surgical care to those evacuated from the CBTZ. This includes the convalescence of patients having the potential of returning to duty. It also provides a variety of subspecialty care, stabilization, and treatment for patients requiring medical evacuation.

An operational mission for a fleet hospital should encompass the hospital's design concepts, clinical capabilities/limitations, and concepts of employment. The most basic, underlying design concept of Navy fleet hospitals is that they are modular, rapidly assembled, medical and surgical shore-based facilities. Fleet hospitals are pre-positioned in various Continental United States (CONUS) and Outside Continental United States (OCONUS) locations. By design, they are assembled and operational in 10 days by the hospital's assigned staff, and are outfitted with a 30-day initial supply of consumables. A second 30-day supply package is immediately pushed through the system so that the fleet hospital arrives in theater with 60 days of supplies. The original concept was for an essentially self-sustaining facility, except for the provision of logistics and other base support needs from the theater task force commander. These needs must be identified and planned for prior to deployment. Although pre-positioned worldwide, most fleet hospitals must be transported to the operational site.

In the early 1980s, congressional concerns over apparent inconsistencies among the Services' wartime resource requirements led to the development of the Deployable Medical Systems (DEPMEDS) concept. DEPMEDS, with the exception of ship or aircraft configured systems, are capable of being located in an area of operation during a contingency, war, national emergency or humanitarian mission. They are standardized among the Services to the maximum extent consistent with their distinct missions. This standardization means that DEPMEDS facilities of each service equip themselves with common components. These components are established by a quad-service group and include only medical and dental items. Another important key to understanding DEPMEDS (and in turn, Navy fleet hospitals) is that component selection depends upon a common database, used by all four Services. This database consists of approximately 350 patient conditions, the tasks required to treat each condition at each echelon of care, and the personnel required to perform each task, generating a requirement for materiel. These patient conditions include the most likely wounds and diseases that could occur in a theater of conflict. Based on the performance of selected tasks by clinical personnel, the database provides information such as identifying required supplies and equipment.

Fleet hospitals offer a complete range of surgical specialties: general, thoracic, plastic, otolaryngology, urology, gynecology, orthopedics, neurosurgery, ophthalmology, anesthesiology, oral surgery, and general dentistry. Medical specialties include internal medicine, general practice, family practice, emergency medicine, dermatology, psychiatry, anesthesiology, neurology, radiology, pathology, and preventive medicine. Clinical support services include: casualty receiving and triage, laboratory, radiology, (limited) blood banking, operating rooms, postoperative recovery, patient beds, pharmacy, and central sterile supply. Fleet hospitals have a fully operational laboratory and can provide some of the same laboratory functions as large

hospitals. Each operating room has two tables. Patient beds are designated as intensive, intermediate, or minimal. The number of operating room tables and bed types varies with fleet hospital bed size. Fleet hospitals are designed to perform a high volume of patient care. Table 1 depicts the average number of daily admissions and operative procedures based on facility bed size (Fleet Hospital Manual):

Table 1

Average Daily Admissions and Operative Procedures of Fleet Hospitals

Bed Size	Average Daily Admissions	Average Daily Operative Procedures
100	16 to 32	14 to 18
250	40	27
500 (CBTZ)	80	54
500 (COMMZ)	60	30

Note. Average daily operative procedures for the 500 bed COMMZ hospital are less than that for the 500 CBTZ hospital, although both have the same number of operating room tables. This is because the surgical caseload of the COMMZ hospital is comprised of more time-consuming cases.

Fleet hospitals have a range of clinical specialties and clinical support functions however, unless augmented with appropriate personnel, equipment, and supplies, the following specialties are not normally included: pediatrics, gastroenterology, nephrology, and cardiology. Fleet hospitals were not designed to provide community hospital functions other than for the staff. For operations requiring extended community hospital functions, fleet hospitals would have to be augmented. The fleet hospital commanding officer should evaluate the mission and the

evacuation policy, then determine if augmentation with these or other specialists is needed. Provision of augmented services may require significant additional equipment and consumables.

Fleet hospitals are Navy medical assets that can be used in Navy/Marine Corps, joint, and combined or coalition operations. They are well suited for joint operations because of their self-sustainability and ability to incorporate DEPMEDS components. They can be employed in war operations (high, medium, and low intensity conflicts) and in certain peacetime operations, such as humanitarian assistance and disaster relief, although the larger hospitals would not normally be deployed in support of the latter. As previously stated, fleet hospitals are to be employed in support of long-term (60+ days) operations. This is because the approximate time required to complete three major tasks; preparing the site, transporting components and personnel, assembling the hospital and become fully operational is 25 days.

Fleet hospitals should not be employed in operations where mobility of facilities providing medical care is a requirement. Fleet hospitals are relocatable but should not be considered mobile. The difficulties in relocating a Fleet Hospital from one operational site to another are such that deploying another hospital, rather than relocating an existing one, may be more logistically feasible. Although fleet hospitals are primarily employed to support ground-based operations, they can provide support to concurrent air and maritime operations. However, fleet hospitals were not designed to support sea-based operations, as these require logistic, security, and other specialized support that would not be available in that environment.

BUMED is responsible for monitoring the training of all active duty personnel assigned to fleet hospital mobilization billets. During peacetime or other periods of non-mobilization, individual commands are responsible for ensuring that personnel assigned to such billets receive required readiness training to include funding the training. The direct cost requirement for the

annual training was absorbed by FHOTC and the ORE was funded by BUMED. The uniform requirements for the fleet hospital personnel must be met by NHJAX.

Unit training is group training of all members of a particular deployable platform. For fleet hospitals, the primary unit training is conducted at FHOTC. Although it is not feasible for all personnel who would deploy on a particular operational platform to attend the same classes, the goal is to have the majority (200 to 220) attend as a group. This is especially critical for the Phase II (actual Exercise) classes as this type of unit training builds esprit de corps, and unit effectiveness. Attendance at Phase I (Training) class is required of all personnel assigned to a fleet hospital billet. A fleet hospital must have BUMED approval to deploy with less than the requisite 100% of its staff having attended the FHOC Phase I class. Attendance at a fleet hospital unit Phase II class is required every three to five years for refresher training and assessment of unit operational efficiency. The course structure is designed and oriented to provide general familiarization with the Fleet Hospital Program and rating-specific training. An assembly/disassembly exercise and a simulated operational casualty exercise are also included.

For active duty personnel, the FHOTC Phase II class is six days; for reserve personnel, 12 days. The course structure gives individual fleet hospital units the opportunity to assess the efficiency of their training programs and their degree of operational readiness. The course provides updates in the Fleet Hospital Program, refresher training in assembly/disassembly and expansion of the student command staff responsibilities. It provides the fleet hospital unit in-depth functional area training during an extended (36-hour) casualty exercise in a simulated operational environment facilitated by the FHOTC staff.

Fleet hospitals are organized by functional areas: operating room, surgical suite, laboratory, radiology, pharmacy, communications, administration, supply and public works to

name a few. The "Navy Training Plan for Fleet Hospitals" requires that personnel accomplish functional area training individually or in teams. Functional area training for non-medical personnel includes a five-day course at FHOTC where personnel use all the equipment they deploy with. This course is offered two to three times annually as scheduling permits, primarily for specific reserve personnel ratings/specialties with the Fleet Hospital Program. Medical functional area training may be obtained from MTFs/DTFs, as on-site or exportable training from the Joint Medical Readiness Command (Combat Casualty Care Courses, etc.), field exercises, FHOTC, or at Army or Air Force training sites. Because fleet hospitals have no organic air evacuation assets, unit training on air operations is not provided to fleet hospital personnel; however, some introductory training is provided in patient evacuation procedures. Because involvement in patient air evacuation is possible, it is recommended that fleet hospital commanding officers secure training (i.e., helicopter support unit training and Medical Regulating Course) for selected individuals prior to deployment. The theater commander is responsible for providing air operations support and air evacuation support. The training of fleet hospital personnel is not intended to alleviate this responsibility but to enhance understanding of the total system.

The fleet hospital provides the operational commander with a deployable facility capable of providing medically and surgically intensive care. It can meet various missions by augmenting the designed modules with additional capabilities. The fleet hospital is staffed with properly prepared and trained Navy medical and non-medical personnel, and with Marine Corps security forces. In the 250 and 500 bed configurations, the fleet hospital is designed to be self-sufficient. In the 100-bed configuration, the fleet hospital can be self-sufficient as well. It can also be brought in with no augmentation packages and rely on the theater commander for that support.

While initially conceived and developed as a facility to provide surgical and medical support during intense combat operations, fleet hospitals can also be used in protracted low intensity scenarios.

BUREAU OF MEDICINE AND SURGERY

The mission of the Bureau of Medicine and Surgery and Navy medicine is to provide high quality, economical health care to 700,000 active duty Navy and Marine Corps members and 2.6 million active duty, retired and family members. This care is delivered at a little more than half the national per capita average cost while supporting contingency, humanitarian and joint operations around the world with highly trained, dedicated health care professionals adhering to the principles of Total Quality Leadership (BUMED). BUMED is organized to meet the needs of all aspects of Navy Medicine. Major functional areas within BUMED are:

    Med-00MSC - Medical Service Corps
    Med-00HC - Force Master Chief
    Med-00G - Pastoral Care
    Med-00IG - Inspector General
    Med-00MC - Medical Corps
    Med-00NC - Nurse Corps
    Med-00P - Special Assistant Public Affairs
    Med-01 - Resource Management/Comptroller
    Med-02 - Operational Medicine & Fleet Support
    Med-03 - Health Care Operations
    Med-04 - Logistics
    Med-05 - Education, Training & Personnel
    Med-06/Med-00DC - Dentistry
    Med-07 - Reserve Force Integration
    Med-08 - Plans, Analysis and Evaluation
    Med-09 - Deputy Chief, BUMED
    Med-09X - Congressional and Legislative Affairs
    NMIMC - Naval Medical Information Management Center

In order to gain a complete understanding of the readiness aspect of Navy Medicine, I spent one week at BUMED gathering information for this paper. I spent time with Resource Management, Reserve Force Integration and Operational Medicine and Fleet Support. Resources

Management (MED 01) is the home of the Navy Medicine comptroller and is supported by four divisions:

Budget (MED 11)
Progress Reports and Statistics (MED 13)
Accounting (MED 14)
Manpower and Planning (MED 15)

Most of the time was spent with the Budget and Manpower directors. I was able to get actual cost figures for NHJAX readiness training from the MED 11 area and discussed the platform readiness from a personnel standpoint with LCDR Chivington in MED 15. She explained the component unit identification code (UIC) concept and provided some valuable insight on the assignment process that is in keeping with Navy Medicine's Total Health Care Support Readiness Requirement (THCSRR). THCSRR is a model that has been adopted to enable Navy Medicine to better define the most efficient and effective mix of manpower readiness requirements. In order to maintain that balance, the assignment and placement officers at the Bureau of Naval Personnel are writing orders for members to report to their contingency platform. While the platform is not the primary assignment, it is the primary focus. However, platform assignment is not full time work so the service member is given an additional duty assignment to the nearest naval treatment facility, their primary assignment. The most important implication of the THCSRR for medical planners is the leverage it provides to ensure readiness-training requirements are met.

Reserve Force Integration (MED 07) deals with Reserve Matters and is supported by four divisions:

Resource and Policy (MED 71)
Operational Platforms (MED 72)
Contributory Support (MED 74)
Reserve Personnel and Training (MED 75)

Commander Ras of MED 72 was instrumental in providing information regarding the deployment of an active duty platform and the processes that are in place for reserve force integration. He revealed that the reserve force was in the same predicament as the active force as far as financial resources were concerned, i.e., they are both underfunded. The reserve force was also concerned with the training requirements. When asked about the requirements for reserve training for fleet hospital and the resources needed to accomplish that readiness, he replied "they just do not exist" (CDR Lee Ras, personal communication January 31, 2001). CDR Ras continued by pointing out that the dollar cost of deployment placed the biggest burden on the reserve forces. Costs are grouped into three major areas.

Immunizations. A series of immunizations is required prior to deployment. Other immunizations are given depending on the geographic location. The active duty contingency builds this cost into the budget and is part of the annual readiness requirements. The reserve forces do not share the same annual readiness requirements and have been relying on the active duty budget for immunization maintenance. In FY00, the reserve forces consumed over $190,000 of the NHJAX budget in order to maintain that state of readiness.

Physical Exams/Pre and Post Deployment Screenings. Another area of readiness that is built into the active duty budget and the reserves rely on that budget. The physical exams are usually done on the reservists drill weekend using the resources from the parent/training command (NHJAX). The pre and post deployment screenings must be done at a major MTF, therefore the MTF budget is expended on reserves as well as the regular staff.

Training. The reserve forces training in the medical environment traditionally consists of fixed facility training. As per CDR Ras, "the biggest concern does not lie with the reserves being ordered into an MTF continuing the beneficiary care, but in the reserves being tasked with

replacing the active duty contingency in theater" (CDR Lee Ras, personal communication

January 31, 2001). The second aspect which concerns MED 72 as well as many of the MTF's, is

the number of civilian personnel on staff that are drilling reservists. "We can no longer rely on

the civilian staff to be the backbone of a department…we need to ensure our reserve forces are

ready and trained in all aspects of the military health care system" (CDR Lee Ras, personal

communication January 31, 2001). Finally, MED 72 has been struggling with the current

Managed Care initiative of Primary Care Manager (PCM) by name. In order to maintain

continuity of care, the drilling reservists should be linked to a staff PCM. This is essential in

easing the transition of patient care as most staff PCM's are on a deployment platform.

The reserve forces play a significant role in the readiness posture maintained by the armed

forces. NHJAX used reserve forces for augmentation on three separate occasions in calendar

year 2000.

With a better understanding of the Reserve role and the concept of Reserve integration, the

next logical area to research was the Operational Medicine and Fleet Support Branch (MED 02).

This is the area that focuses on the training, deployment and readiness of the Navy medical

department as a whole. The mission of MED 02 is "to develop and oversee the implementation

of medical and dental programs that pertain to Navy and Marine Corps operational support; to

define medical research, development, test, and evaluation (RDT&E) requirements and evaluate

their feasibility. To provide advisory services and develop technical documentation guidelines

for the application and implementation of operationally related health care policies. To assist the

Chief, BUMED with the assimilation of operationally related health care information obtained

from platform sponsors. To oversee the implementation of policies and directives for the conduct

of occupational health, preventive medicine and health promotion programs" (Operational

Medicine and Fleet Support Branch MED 02).

The primary functions of MED 02 are to maintain a working relationship with fleet operational platform sponsors through designated Navy Medical Department representatives. To identify and define medical research, development, test, and evaluation requirements in support of the fleet. It monitors and reviews research and development programs for feasibility of application and implementation following Navy and Marine Corps requirements. They review operationally related technical information for use in developing improved fleet support health care execution guidelines. They provide timely information pertaining to operational matters impacting on program development and associated resource requirement submissions. They monitor and oversee subordinate command and medical and dental treatment facility implementation and compliance with Navy occupational health and safety technical directives received from higher authority. Develops, in conjunction with the Navy Environmental Health Center (NEHC), technical guidelines for the execution and implementation of occupational and preventive medicine and safety policies in subordinate commands, MTF's, DTF's and the fleet. They develop the technical guidelines for review of physical standards, and issues implementation guidelines. They survey and review activity compliance with physical standards. Advise and assist the Chief, BUMED in exercising command responsibility over the Naval Medical Research and Development Command, the Naval Environmental Health Center, the Naval Aerospace Medical Institute, and the Naval Undersea Medical Institute. Provide oversight management of the entire Department of the Navy Independent Duty Corpsman Program. Serve as Navy Representative on the Armed Services Biomedical Research Evaluation Management (ASBREM) Committee. Serve as Navy Representative to the Defense Medical Standards Board (DMSB). Coordinate and monitor requirements for operational medical training. Coordinate and

monitor health promotion programs. Provide professional and technical guidance over design, construction and equipping of medical facilities afloat in coordination with the Commander, Naval Sea Systems Command. Supervise the execution of medical readiness planning, medical support of contingency operations, and medical liaison with intelligence communities. Provide oversight for the management of the Navy Blood Program. MED 02 is supported by six divisions:

> Undersea Medicine and Radiation Health (MED 21)
> Surface Medicine (MED 22)
> Aerospace Medicine (MED23)
> Preventive Medicine and Occupational Health (MED 24)
> Physical Qualifications Review (MED 25)
> Readiness (MED 27)

With readiness in mind, the MED 27 Division became the focus of effort. This Division has five departments that focus on the major aspects of readiness:

> Fleet Hospital/CRTS and Joint Task Force
> Marine Forces/Medical Mobilization Augmentation Readiness Teams
> National Disaster Management Systems
> Hospital Ships and Deployable Medical Systems
> Navy Blood Programs.

The mission of MED 27 is to serve as BUMED coordinator for the implementation of medical mobilization and contingency response policy and doctrine and to monitor medical readiness. MED 27 directs claimancy 18 (Navy Medicine) actions in the health service support of operational forces and provides policy and guidance on emergency preparedness planning and execution by BUMED facilities in support of their Responsible Line Commanders. This division reviews and disseminates medical intelligence as well as manages the Navy Blood Program (NBP).

In discussing readiness with LCDR Rich Guzman, head of MED 27, he cited a mismatch of requirements and platforms, "people heavy" platforms which drain human resources from the

MTFs, expensive platform maintenance and training that does not prepare for the current go to war requirements for our current state of "un-readiness." He shared some examples of recent real-world contingencies that led to the realization of the problems outlined above. His discussion focused on sending "robust" medical capabilities into areas following a hurricane or earthquake and discovering that the equipment does not meet the mission needs. He continued by saying that the goal of the readiness division was to propose platforms containing high demand/low density (HD/LD) medical assets. The premise of this type of platform was based on the medical response to a recent earthquake in Turkey. BUMED ordered a medical assistance team into the area and they deployed with assets to provide field hospital care. When they arrived, they realized that establishing a fixed aid station was not a requirement (or the most pressing necessity). Instead they concluded that mobile first aid was the immediate need and the most prevalent requirement was for basic subsistence including food and water. Another realization was that sending in a small fleet hospital was not very efficient due to the unstable terrain. In the end, much of the required equipment had to be ordered after the platform was already in place, raising the overall cost of the mission.

After identifying the problems, the Readiness division began to develop some solutions. In discussing a new readiness plan the first change was to make the plan requirements based. This would enhance operations and would alleviate the problems associated with the Turkey deployment. The new plan would need to be effective and economical to execute. Again, the basis for this change is the minimization of costs and the maximization of effectiveness. This goal would be achieved by deploying the correct platform from the onset. Finally the new plan must integrate all of the primary stakeholders of readiness and address the following question: "Are the current naval operational support platforms the most efficient, effective and economical

platforms to meet the full spectrum of operations" (MED 27 Surgeon Generals Brief, Jan. 2001)? According to LCDR Guzman, this question is the basis for the current development of a strategic plan that will clearly illustrate the current validated requirements as defined by the Regional Commanders. One that can be supported by the MTFs and identify the naval medical platform to adequately support the requirements, and develop a training program for total platform readiness to optimize resources at all levels. It was recommended that the Surgeon General empower and resource MED 02 as the principle developer of a new Naval Medical Readiness Strategic Plan, and that MED 02 employ an executive level panel (stakeholders) to develop the plan. As of this writing, the new plan is not complete.

The opportunity to spend this research time with the decision-makers of Navy Medicine was instrumental in gaining an understanding of the readiness goals and objectives currently in place. It was also encouraging to see the constant evaluation of the program and the efforts in place to enhance platform training as well as the desire to maximize contingency efforts. This research effort was essential for gaining a true understanding for the processes at NHJAX with respect to training, deployment and the overall readiness posture

IMPACT

In an attempt to fully understand the impact readiness has on this command four areas were scrutinized; cost, the staff, the patients and training. There are many variables that play into each of these four major areas and these will be evaluated at length in the next section.

Over the course of time, it was apparent that the major concern of being ready was funding. The question of "how much is being spent on readiness" was asked not only by the NHJAX Executive Steering Council, but by BUMED staffers at all levels. While BUMED is attempting to formulate an answer for the Navy Medical department, the "how much" question is

much more difficult at the MTF level. For the purposes of this paper, military pay was never considered as a cost impact as military salaries are paid by the Department of the Navy (DON) and do not directly affect the budget at NHJAX. Additionally, the cost to use reserves as "backfill" was not considered as that money is set aside by MED 07 and has no direct cost impact on NHJAX. Funding for training is provided to NHJAX by the DON and is "fenced" for training only. The issue of providing uniforms and accoutrements for all operational personnel was revisited in October as the requirements were revised. As of the first of January, 2001, all operational personnel were required to have two full sets of Camouflage Utility Uniforms (CUU) and embroidered collar and cap devices. The total cost to provide cap and collar devices for each member was $1,662 and the total cost to provide one additional set of CUU's was $73,922 for the entire Fleet Hospital staff.

In August of 2000 when the USS Nassau platform reported for training, the cost breakout was $216 for travel and $57 for per diem for a total of $273 per member. A total of 84 personnel attended training at a cost of $22,392. This was funded by the Naval School of Health Sciences so the cost of this training to NHJAX should be measured with respect to its impact on productivity. According to the Reserve Liaison Office at NHJAX, 80 reserve personnel (39 Officers and 41 Enlisted) reported for training during that time period with a 97% match of skill type needed. The workload division of NHJAX provided the following information:

Table 2

Average Monthly Visits/Admissions Compared to a Deployment Month (August)

YEAR	AVG Outpatient Visits/month	August Outpatient Visits	AVG Admissions per month	August Admissions
FY99	29,957	28,209	408	426
FY00	28,845	30,890 **	374	371**

Note. **Denotes Deployment Month

Table 2 compares the number of outpatient (OP) visits from August of 1999 to August of 2000. It is noteworthy that while the average number of OP visits per month was 1,112 less in FY00 compared to FY99. Also, the total number of OP visits in August of 2000 was 2,681 higher when compared to August of the previous year. One conclusion that may be drawn from this overview is that the reserve backfill staff has the luxury of reporting for duty and focusing on patient care. The NHJAX core staff is responsible for attending myriad meetings or being assigned to various boards and committees, which arguably detracts from their ability to provide patient care.

The Managed Care department provided the following information on network use:

Table 3

Network Usage for a Deployment Month (August)

YEAR	AVG Consults Ordered	AVG Consults Sent to network	AVG Network Use by percent	August Consults Ordered	August Consults to Network	August Network Use by percent
1999	3936	885	22%	4247	932	22%
2000	4154	905	22%	4940**	1027**	21%**

Note. **Denotes Deployment Month

Table 3 shows that during August of 2000, more consults were ordered when compared to

1999 and almost 800 more consults were ordered when compared to the average ordered for 2000. It also shows that over 100 more consults than the monthly average were sent to the network, but from a utilization standpoint, there was a 1% decrease in network usage in August.

Using the information provided, it is determined that the fiscal impact of readiness training on NHJAX was negligible, and that productivity actually went up during the deployment month of August 2000.

As for the fleet hospital, there are different ways to measure cost. First, there is the cost of the required training for 240 personnel at FHOTC March of 2000. According to the POMI Officer, the transportation costs were $90,744 and the cost for uniforms was $11,700. As mentioned earlier, this money was already in the NHJAX budget and designated for training so the cost of this training to NHJAX should be measured in productivity. Again, the Reserve Liaison Office at NHJAX, reported that 63 reserve personnel (51 Officers and 12 Enlisted) reported for training during that time period. With a shortfall of 177 personnel, the disparity between available and required skill types was overwhelming. The workload division of NHJAX provided the following information:

Table 4

Average Monthly Visits/Admissions Compared to a Deployment Month (March)

YEAR	AVG Outpatient Visits	March Outpatient Visits	AVG Admissions	March Admissions
FY99	29,957	35,709	408	443
FY00	28,845	32,004 **	374	336**

Note. **Denotes Deployment Month

Table 4 compares the number of OP visits from March of 1999 to March of 2000. The numbers here show an obvious decrease in patient visits. Again, the March 2000 OP visits are

much higher than the average number of OP visits for 2000, but when compared to March 1999, the total number of OP visits was 3,705 less. The decrease in patient visits is easily associated with the large number of deployed personnel and the paltry 25% reserve backfill. The Managed Care department provided the following information on network use:

Table 5

Network Usage for a Deployment Month (March)

YEAR	AVG Consults Ordered	AVG Consults Sent to network	AVG Network Use by percent	March Consults Ordered	March Consults to Network	March Network Use by percent
1999	3936	885	22%	4715	1019	22%
2000	4154	905	22%	4394**	964**	22%**

Note. **Denotes Deployment Month

Table 5 shows that during March 2000, 312 less consults were ordered when compared to 1999. It also shows that 60 more consults than the monthly average were sent to the network, but from a utilization standpoint, there was no significant change in network usage. While the information provided shows a fiscal impact on NHJAX, that money was already budgeted and should be considered sunk costs. One area of readiness that must be re-evaluated by the RLO and the POMI Officer for future deployments is the reserve backfill process. However, the real impact of this deployment is clearly defined by the reduction in patient visits. One may conclude that the decreased number of patient visits in March of 2000 led to an increase in waiting times for appointments in subsequent months. However, According to the customer service department of the Managed Care directorate, there were no patient complaints regarding access to care for calendar year 2000.

The customer service department is keenly aware that patient concerns may become more prevalent during training/deployment evolutions. This department uses a local survey instrument

called Pulse Point to get an immediate picture of the command climate with regard to patient satisfaction. Pulse Point surveys are conducted at various points throughout the facility and are administered via laptop computers. The information is easily uploaded into a database and placed on the command Intranet, giving the Commanding Officer instantaneous results. This focus on customer service led NHJAX to be named as the DoD Customer Satisfaction Award winners for FY2000.

The ORE that took place in October 2000 provided another opportunity to evaluate the impact of readiness at NHJAX. Again, 240 personnel were sent to FHOTC for training. The costs were $98,000 for transportation and $15,400 for uniforms. The ORE is a Navy Medicine requirement for attaining "Ready Fleet Hospital" status, therefore the costs were covered by BUMED and the cost of this training to NHJAX should once again be measured in its impact on productivity. The Reserve Liaison Office at NHJAX, reported that 167 reserve personnel (97 Officers and 70 Enlisted) reported for training during that time period. While this training evolution left NHJAX with a shortfall of 73 personnel the match of skill type was 91% and was marked improvement over the March exercise. The workload division of NHJAX provided the following information:

Table 6

Average Monthly Visits/Admissions Compared to a Deployment Month (October)

YEAR	AVG Outpatient Visits	October Outpatient Visits	AVG Admissions	October Admissions
FY99	29,957	32,838 (Oct 98)	408	407
FY00	28,845	27,664 (Oct 99)	374	371
FY01	29,402	30,806 (Oct 00)*	437	408*

Note. *Denotes Deployment Month

Table 6 compares the number of outpatient (OP) visits from October of 2000 with the visit totals from October of 1998 and 1999. When compared to October of 1999, there is a 3,000-visit increase. When compared to October of 1998, there is a 2,000-visit decrease. As compared to the average number of visits for FY 01, there were 1,400 more visits. Due in large part to a reserve backfill of 70% with an appropriate skill mix of 91%, the deployment of 240 facility staff did not have an adverse effect on the delivery of patient care. The Managed Care department provided the following information on network use:

Table 7

Network Usage for a Deployment Month (March)

YEAR	AVG Consults Ordered	AVG Consults Sent to network	AVG Network Use by percent	October Consults Ordered	October Consults to Network	October Network Use by percent
1999	3936	885	22%	4143	862	21%
2000	4154	905	22%	5694**	724	12%**

Note. **Denotes Deployment Month

Table 7 shows that during October of 2000, 1,551more consults were ordered when compared to October of 1999. It also shows that 181 less consults than the monthly average were sent to the network, and from a utilization standpoint, there was significant 10% decrease in the number of consults being sent to the network. As mentioned earlier, the reserve component is able to focus on the delivery of patient care without being encumbered by collateral duties. The numbers above clearly indicate that with the appropriate reserve backfill and the capability to focus on patient care, deployment training/readiness can be accomplished with no significant interruptions to patient care. It appears that the RLO and the POMI Officer were able to enhance the reserve backfill process for the October evolution as shown by a 45% increase in backfill personnel and no measurable loss of productivity.

Staff

Now that the readiness impact has been evaluated from fiscal point of view with an access to care focus, there must be an internal evaluation to explore the staff perception to the readiness training/deployment evolutions. In an attempt to gather information regarding the perception of readiness and the impact readiness has on this facility, a survey tool was written and disseminated (Appendix B). Obtaining information from a large population can be somewhat overwhelming. There are many approaches available for amassing the data needed to facilitate the required study. One such method is the implementation of a survey tool. While there are two alternatives to gathering information, observation and questioning, the "questioning" approach is the obvious choice for surveys.

Survey Development. The great strength of questioning, or conducting a survey, as a primary data collecting technique is versatility. There is no requirement for visual or other objective perception of the information sought by the researcher. According to Cooper and Schindler, "We seldom learn much about opinions and attitudes except by questioning" (1998 p. 287). Further, questioning is more efficient and economical than observation. A few well-chosen questions can produce information that would take much more time and effort to gather by observation. Additionally, a survey that is administered by phone, through the mail or via the Internet can expand the geographic coverage at a fraction of the time and cost required by observation. However, the questioning technique is not perfect. The major weakness is that the quality and quantity of the information depends heavily on the ability and willingness of the respondents to cooperate.

People often refuse to be interviewed or fail to respond to a mail survey. There are many reasons for an unwillingness to cooperate. The prospective respondents may fail to see any value in participation or they may feel the topic is too sensitive or intrusive. Additionally, the respondent may have little or no knowledge of the topic. Another weakness with surveys, especially those that are not administered face to face, is that the respondent may interpret the questions differently from what was intended, or they may intentionally mislead the researcher by giving false information.

Self-Administered Questionnaires. The self-administered questionnaire is found to be the most common type of survey tool in use today. A popular tool as it can be completed at the respondent's convenience and is easily returned to the researcher. Some advantages of self-administered computer based surveys are:

- Rapid delivery
- Rapid data collection
- Gives the respondent the time to think through the question
- Fast access to the computer literate

Some disadvantages are:

- Low response rates
- No interviewer intervention
- Anxiety among the computer illiterate
- Computer security

One general rule of thumb for these types of surveys is that the respondent should be able to answer the questionnaire in no more than 10 minutes.

According to Cooper and Shindler, there are many tactics to employ in an attempt to improve response rates (1998). There have been over 200 methodological articles written on these efforts and the general consensus is that there is no guaranteed method to increase response

rates. Still, as discussed below, several recommended tactics were used in this study in an attempt to improve response rates.

Tactic 1--Preliminary notification. There is evidence that advanced notification is effective in increasing response rates. Prior to administering the survey, I sent out two Intranet wide e-mails notifying all prospective respondents of the forthcoming survey with instructions regarding the duration of study, the nature of the study and method of return.

Tactic 2--Follow-ups. Very successful in increasing response rates. The persistent researcher can achieve an extremely high total response rate. At the mid-way point of the data collection period, I sent a reminder e-mail notice encouraging participation in the study. Other methods of follow-up include phone calls, postcards and other mailings as well as advertising in organizational publications.

Tactic 3--Questionnaire length. While it is suggested that a shorter survey will improve response rates, research evidence does not support this. The survey used in this study was only 20 questions in length and was completed by a test group in less than 15 minutes.

Every attempt was made to facilitate an accurate survey with a maximum response rate, but the response rate was still low. The preliminary notifications were an attempt to peak interest and give the study some momentum. I feel that many of the prospective respondents ignored the e-mail traffic because, in my opinion, e-mail at NHJAX tends to contain a high percentage of superfluous information. Additionally, the survey was transmitted from the generic command information mailbox that is used to send out information regarding anything from command watchbills to picnics. When I told a senior staff member that I had finally sent out my survey, he reported that he had not seen it. When I informed him that it was sent through the generic command information e-mail, he replied that he deletes the information he receives from that

source without even reading it. The follow up message may have received the same attention as the preliminary message as well as the message with the survey attached.

As previously mentioned, the survey was only 20 questions in length and took less than 15 minutes to complete. Prior to the administration of the survey, I had no less than six different reviews and made what were thought to be appropriate changes. Post survey feedback from the respondents outlined areas requiring clarification as well as identifying the need for a not applicable choice for some of the questions. The respondents were required to print the survey, fill it out and place it in one of the four drop-boxes located throughout the facility. This method was employed to ensure an anonymous response, but the thought of not being able to respond electronically may have discouraged participation. Finally, the duration of the survey was one week in an attempt to get a quick turn-around on the survey. I do not feel that the short time period adversely affected the response rate.

The tool for this study was submitted to 1000 respondents by way of an organizational Intranet. There were 70 responses, which equates to a response rate of 7%. As outlined above, there are many reasons the survey method chosen may have been ineffective. However, it is my belief that because the respondents did not know the researcher and because the survey was academic in nature, there was no buy in. It is recommended that in future studies of this nature that surveys be distributed from the email account of the Director for Administration, Executive Officer or ideally, the Commanding Officer.

Despite the very low response rate, which precludes the generalization of the findings, an overall indication of staff perceptions related to changes in workload during readiness training deployments, suggests that there is no significant change in the overall working conditions at the facility during deployment exercises.

The following three survey questions (see Appendix B for the entire survey) focus on staff perceptions regarding the readiness training process.

Figure 1. "If you remained at NHJAX during any deployment training, describe the number of hours worked."
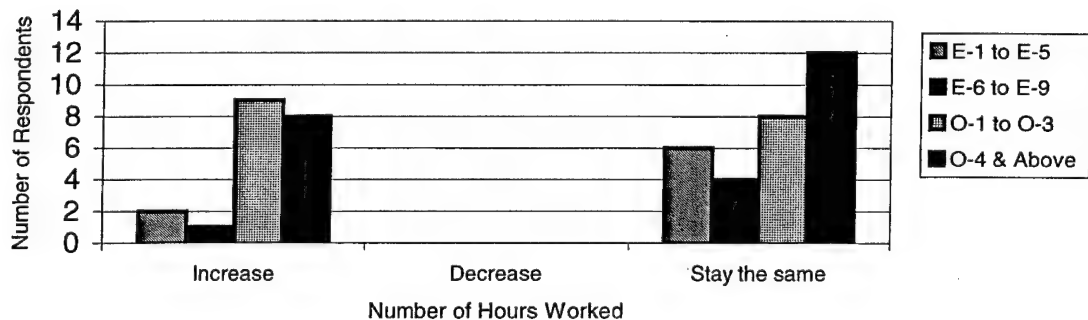
The biggest concern/complaint from the staff in the weeks prior to a large contingency deploying for training is that there will be an increase in the number of hours they must work in order to make up for those who left. Figure 1 shows that while none of 50 respondents felt a decrease in their work hours, 60% of them reported no change in the number of hours worked.

Figure 2. "If you remained at NHJAX during any deployment training, describe your workload."
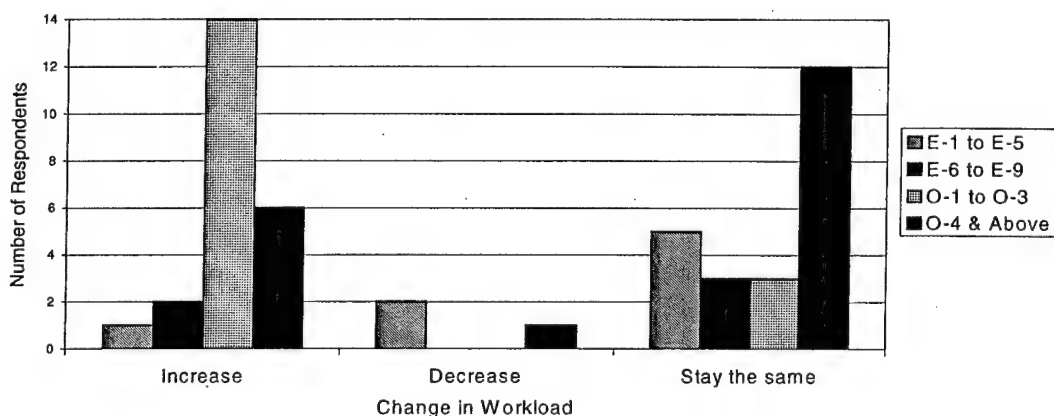
In addition to the perception that the hours worked would increase during deployment training, it is the perception of many that the overall workload would increase as well. Figure 2 depicts that three of the 47 respondents saw a decrease in the overall workload, 49% of the respondents felt their workload increased as a result of a deployment, and 49% felt their work load was unchanged.

Figure 3. "If you are a clinician responsible for administrative tasks, how many hours per week are spent on the administrative duties?"
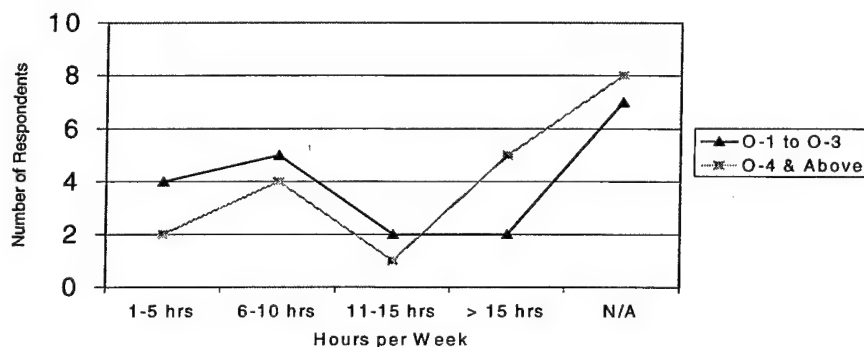
Figure 3 validates the fact that the reserve component can provide backfill without the need to focus on administrative functions. For the purpose of the question, administrative tasks were determined to be meetings, committees, etc. Of the 42 respondents, 16% reported they spend more than 15 hours per week on administrative tasks, 6% reported spending between 11 and 15 hours away from patient care, and 19% spent between 6 and 10 hours on tasks that keep them from their patients. In total, 68% of those who responded to this question spend some time performing tasks that are not directly related to patient care. Using the low end of each of the categories represented, 198 hours per week from a total of 32 providers is spent in meetings and other administrative functions. At 20 minutes per appointment, the same number of reservists could see an additional three patients per hour or 594 patients per week.

CONCLUSIONS

As stated in the original proposal, I expected to fully outline the cost of readiness to this command. Not only on the basis of cost, but also from a patient and staff satisfaction perspective as well. I expected to discover that deployment exercises have minimal impact on the delivery of care, and that the deployment training is truly enhancing the wartime readiness needs of the medical staff.

As the cost information that was gathered for this project was analyzed, it became apparent that the funds expended on training and readiness was budgeted for that purpose. NHJAX was never tasked with carrying out a training evolution or deployment mission that they were not pre-budgeted for. Real world missions and contingencies such as earthquake relief and the NHJAX deployment to Haiti in 1998 are fully funded by BUMED. It is my conclusion that readiness at NHJAX has no fiscal implications on the day to operations.

In order to gain a true perspective of the impact multiple training and deployment activities have on a command this size; one must consider the staff. As detailed in the survey that was outlined earlier, the respondents reported that there was no adverse effect on the working hours or patient load during training periods. Additionally, it was reported that the reserve component providing relief during these periods would be able to see more patients, addressing the access to care questions.

As access to care is determined to be a dimension of customer satisfaction, as well as a mandated TRICARE initiative, it was determined that during the three exercise evolutions evaluated for this paper, the access to care standard was met. This is not based solely on the fact that there were no customer complaints during deployment times, but also on the evidence provided by the workload data examined in this study. During the March deployment evolution,

the number of patient visits were less than the annual average, as well as, the number of visits for March of the previous year. However, the network usage remained the same thus indicating no urgent need to send patients to other venues in order to meet the access to care standards. Workload during the other two deployment evolutions actually increased in total visits and the October mission was carried out with a 10% decrease in network usage indicating that the facility was able to see more patients in house when compared to previous months. The findings of this study suggest that the key to maximization of patient access to care and patient satisfaction during deployment is reserve backfill. By projecting the appropriate number of personnel needed, as well as, the skill type match required, the RLO can ensure optimal use of resources.

The training evolutions attended by NHJAX personnel were instrumental in familiarizing them with their deployment platforms and in increasing their understanding their respective operational environments. For those assigned to the USS Nassau, training on the ship enhances shipboard knowledge and can help to overcome some of the culture shock experienced during at sea periods. For those assigned to the Fleet Hospital platform, it is imperative to obtain hands-on experience in establishing a 500-bed hospital from the ground up and to experiment with some of the field hospital equipment not used in fixed facilities.

Despite the positive findings of this study, problems remain regarding readiness training. As previously discussed, the provision of peacetime care offers medical personnel a limited opportunity to develop and practice war-related surgical skills as the conditions treated at military hospitals during peacetime reflect a wider mix of patients, young and old, living in far different circumstances, than would be the case in wartime. As noted earlier, the most frequent diagnoses at MTFs are pregnancies and live births (GAO 00-10, 1999). Further, none of the 50

most frequent peacetime diagnoses match wounded-in-action conditions (Naval War College

Review, 1997).   Consequently, the care furnished in MTFs today bears little resemblance to that

provided in wartime. From a field medicine stand point this is the source of great concern and

requires further investigation. Many of the facets of training can be addressed administratively

however; in the case of medical readiness it is difficult to substitute for the training and

experience provided by live ammunition and real blood.

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CONTINUATION RATES FY 1997 - FY 1999
ACTIVE DUTY PERCENTAGE CHANGES
DOD TOTAL

GRADE	WHITE 97	WHITE 98	WHITE 99	BLACK 97	BLACK 98	BLACK 99	HISPANIC 97	HISPANIC 98	HISPANIC 99	OTHER 97	OTHER 98	OTHER 99	TOTAL 97	TOTAL 98	TOTAL 99
O-10	65.7	71.9	63.3	100	100	66.7	0	0	0	0	0	100	66.7	74.3	64.7
O-9	74.7	77.2	80.4	50	100	100	0	0	0	50	100	0	72.5	77.8	80.9
O-8	80.3	82.9	81.9	66.7	81.8	84.6	75	66.7	33.3	100	100	50	79.7	83	81.1
O-7	90.1	90.5	89	90.9	89.7	96	100	66.7	83.3	100	66.7	100	90.3	90	89.4
O-6	83.5	82.3	84.4	87.5	88.4	88.4	84.7	85.4	89.8	89.1	83.7	85.1	83.7	82.6	84.7
O-5	89	88	88.4	92.1	89.7	89.2	92.3	90.9	89.3	89.4	88.6	88.8	89.3	88.2	88.5
O-4	90.5	92.6	91.6	89.1	92.8	93.1	90.3	91.8	92.9	88.8	92.6	93.1	90.3	92.6	91.8
O-3	89.9	89.2	88.1	91	91.7	90	90.5	89.1	88.2	90.5	89.2	88.5	90	89.4	88.2
O-2	91.3	91.6	91.4	89.3	90.7	92.2	92.3	93.3	91.6	92	91.1	91.5	91.2	91.6	91.5
O-1	98.5	98.4	98.6	97.8	97.7	98	98.6	98.4	98.3	98.5	99.2	99	98.4	98.4	98.6
TOTAL OFFICER (O)	90.6	90.6	90.2	91.3	92.3	91.8	92.1	91.8	91.4	91.7	91.6	91.5	90.7	90.8	90.4
W-5	81.6	78.9	77.8	90.9	78.1	88.2	85.7	40	71.4	83.3	40	75	82.4	77.5	78.5
W-4	78.2	79.8	82.3	82.5	84.8	84	85.7	80.3	85.9	81.6	88.6	86.5	78.9	80.6	82.8
W-3	86.2	88.9	87.4	88.9	86.7	87.5	87.4	85.9	85.3	91	84.8	84.2	86.7	88.3	87.2
W-2	93.4	93.7	93	92.5	94.1	95	92.3	90.5	93.6	93.3	96.2	92.7	93.2	93.7	93.3
W-1	99.1	98.5	98.3	99.1	98.6	98.4	100	99	99.2	99.2	100	97.1	99.2	98.7	98.3
TOTAL WARRANT (W)	89.4	90.4	89.9	92.1	92.1	92.9	91.4	88.8	91.5	92.2	92.2	90.2	89.9	90.6	90.4
TOTAL W & O	90.5	90.6	90.1	91.4	92.3	92	92	91.5	91.4	91.8	91.6	91.4	90.7	90.8	90.4
E-9	80.1	78.9	78.6	82.9	82.8	84.1	83.5	78.6	83.2	82	80.2	84.1	80.9	79.7	80.3
E-8	81	79.5	80.7	82.8	80.8	83.3	81.8	80.9	83.1	81.4	80.7	80.8	81.5	80	81.5
E-7	87.5	86.4	86.3	87.8	85.8	86.3	88.2	86.2	86.1	86.1	85	85.5	87.5	86.2	86.3
E-6	91.2	90.2	90.3	92.6	90.7	91.4	91.9	90.6	90.9	91.7	91.1	91.6	91.6	90.4	90.7
E-5	88.1	87.7	87	91.2	91	90.9	89.6	88.6	87.9	91.1	90.6	90.3	89.1	88.7	88.1
E-4	73.4	74.9	74.8	80.3	81.7	81.3	75.2	76.9	75.7	78.6	80.3	79.4	75.1	76.7	76.4
E-3	81.7	84.2	85.6	82.3	84.4	85.1	83.7	86.1	87.3	85.2	87.5	88.5	82.2	84.6	85.9
E-2	85.9	85.6	86.1	84.4	84.3	84.8	88.9	89.1	88.8	88.3	88.4	88.6	86	85.8	86.3
E-1	81.2	80.3	80.5	80.4	80.7	80.6	86.5	84.2	85.1	83.2	83.7	83.1	81.7	81	81.2
TOTAL ENLISTED	83.1	83.6	83.7	86.2	86.2	86.4	84.8	85	84.8	86.1	86.5	86.5	84.1	84.4	84.5
TOTAL	84.6	85	85	86.6	86.6	86.7	85.4	85.5	85.3	86.8	87.2	87.1	85.1	85.4	85.5

RETENTION RATES FY 1994 - FY 1996 ACTIVE DUTY PERCENTAGE CHANGES

DOD TOTAL

Grade	White						Black					
	94	95	96	97	98	99	94	95	96	97	98	99
O-10	75	63.2	75	65.7	71.9	63.3	0	0	0	100	100	99
O-9	64.9	75.5	72.2	74.7	77.2	80.4	75	100	100	50	100	66.7
O-8	84	73.5	78.3	80.3	82.9	81.9	85.7	80	83.3	66.7	81.8	100
O-7	88	86.4	91.5	90.1	90.5	89	93.3	84.6	94.1	90.9	89.7	84.6
O-6	81.3	81.4	85.2	83.5	82.3	84.4	82.7	85.1	87.5	87.5	88.4	96
O-5	85.2	87.7	89.3	89	88	88.4	90.6	90.7	92	92.1	89.7	88.4
O-4	85.3	88.7	89.4	90.5	92.6	91.6	87.6	88.5	88.4	89.1	92.8	89.2
O-3	90.3	89.4	90.3	89.9	89.2	88.1	89.2	89.7	90.5	91	91.7	93.1
O-2	90.1	92.1	92	91.3	91.6	91.4	88.3	91.2	91.4	89.3	90.7	90
O-1	98	98.5	98.2	98.5	98.4	98.6	96.9	97	97.9	97.8	97.7	98
TOTAL OFFICER (O)	88.8	89.8	90.7	90.6	90.6	90.2	89.6	90.5	91.2	91.3	92.3	92.2
W-5	87.1	91	83.6	81.6	78.9	77.8	83.3	92.9	89.3	90.9	78.1	91.8
W-4	78.1	75.2	77.1	78.2	79.8	82.3	81.1	81.4	86.7	82.5	84.8	88.2
W-3	86.7	86.3	88	86.2	88.9	87.4	88.8	87.9	90.9	88.9	86.7	84
W-2	92.7	92.6	92	93.4	93.7	93	95.1	93.2	91.5	92.5	94.1	87.5
W-1	97.7	95.5	98.9	99.1	98.5	98.3	98.1	98.3	99.3	99.1	98.6	95
TOTAL WARRANT (W)	89.3	88.4	89.1	89.4	90.4	89.9	92.5	91.7	92.5	92.1	92.1	98.4
TOTAL W & O	88.9	89.7	90.6	90.5	90.6	90.1	89.9	90.6	91.4	91.4	92.3	92.9
E-9	77.8	77	78.8	80.1	78.9	78.6	81.1	81.2	83.9	82.9	82.8	84.1
E-8	77.4	78.3	81	81	79.5	80.7	82.8	82.2	82.6	82.8	80.8	83.3
E-7	85.6	82.9	87.3	87.5	86.4	86.3	87.4	85.2	87.9	87.8	85.8	86.3
E-6	89.8	87.1	90.4	91.2	90.2	90.3	90.8	89	92.6	92.6	90.7	91.4
E-5	87.3	85.6	88	88.1	87.7	87	89.1	89.4	90.4	91.2	91	90.9
E-4	75.7	74.8	74.7	73.4	74.9	74.8	79.4	80.2	80	80.3	81.7	81.3
E-3	81.5	82.7	82.7	81.7	84.2	85.6	79.3	82.5	82.6	82.3	84.4	85.1
E-2	82.5	83.3	85.1	85.9	85.6	86.1	79.1	81.4	83.5	84.4	84.3	84.8
E-1	82.7	83.4	81.7	81.2	80.3	80.5	80.5	82.2	80.8	80.4	80.7	80.6
TOTAL ENLISTED	82.8	82	83.2	83.1	83.6	83.7	84.4	84.8	85.9	86.2	86.2	86.4
TOTAL	83.9	83.4	84.7	84.6	85	85	84.7	85.2	86.3	86.6	86.6	86.7

RETENTION RATES FY 1994 - FY 1996 ACTIVE DUTY PERCENTAGE CHANGES
DOD TOTAL

Grade	Hispanic						Other						Total					
	94	95	96	97	98	99	94	95	96	97	98	99	94	95	96	97	98	99
O-10	0	0	0	0	0	0	0	0	0	0	0	100	73	63.2	75	66.7	74.3	64.7
O-9	0	100	0	0	0	0	0	100	100	50	100	0	64.7	76.9	73.8	72.5	77.8	80.9
O-8	57.1	66.7	100	75	66.7	33.3	66.7	66.7	50	100	100	50	83.4	73.7	78.5	79.7	83	81.1
O-7	100	100	83.3	100	66.7	83.3	87.5	75	71.4	100	66.7	100	88.2	86.4	91.2	90.3	90	89.4
O-6	86.3	83	88.7	84.7	85.4	89.8	91.2	89	89.3	89.1	83.7	85.1	81.6	81.7	85.4	83.7	82.6	84.7
O-5	86.7	88.4	90.5	92.3	90.9	89.3	86.3	90.9	90.3	89.4	88.6	88.8	85.5	87.9	89.5	89.3	88.2	88.5
O-4	87.6	88.7	88	90.3	91.8	92.9	85.7	88.2	88.5	88.8	92.6	93.1	85.6	88.6	89.2	90.3	92.6	91.8
O-3	88.9	89.6	90.9	90.5	89.1	88.2	89.6	88.6	89.7	90.5	89.2	88.5	90.1	89.4	90.3	90	89.4	88.2
O-2	85.9	90.3	91.9	92.3	93.3	91.6	88	91.6	92.4	92	91.1	91.5	89.8	91.9	92	91.2	91.6	91.5
O-1	97.6	97.7	97.5	98.6	98.4	98.3	98	98.3	98.3	98.5	99.2	99	97.9	98.3	98.2	98.4	98.4	98.6
TOTAL OFFICER (O)	89	90.4	91.4	92.1	91.8	91.4	89.8	90.9	91.5	91.7	91.6	91.5	88.9	89.9	90.8	90.7	90.8	90.4
W-5	100	80	83.3	85.7	40	71.4	100	100	100	83.3	40	75	87.3	90.9	84.1	82.4	77.5	78.5
W-4	80.5	77.4	78.1	85.7	80.3	85.9	82.5	69.7	77.4	81.6	88.6	86.5	78.5	75.5	77.8	78.9	80.6	82.8
W-3	86	90.5	89.8	87.4	85.9	85.3	87	83.8	88	91	84.8	84.2	86.9	86.4	88.4	86.7	88.3	87.2
W-2	94.2	92.9	92.5	92.3	90.5	93.6	93.8	93.7	90.1	93.3	96.2	92.7	93.1	92.7	91.9	93.2	93.7	93.3
W-1	100	93.9	100	100	99	99.2	97.8	96	99.2	99.2	100	97.1	97.8	95.8	99	99.2	98.7	98.3
TOTAL WARRANT (W)	92.2	91	91.3	91.4	88.8	91.5	90.8	87.5	89.4	92.2	92.2	90.2	89.7	88.8	89.5	89.9	90.6	90.4
TOTAL W & O	89.3	90.4	91.4	92	91.5	91.4	89.9	90.6	91.3	91.8	91.6	91.4	89	89.8	90.7	90.7	90.8	90.4
E-9	82.4	82.8	81.4	83.5	78.6	83.2	82.5	79.9	83.8	82	80.2	84.1	78.7	78.1	80.1	80.9	79.7	80.3
E-8	80.7	79.9	82.7	81.8	80.9	83.1	79.3	79.9	81.8	81.4	80.7	80.8	78.7	79.3	81.4	81.5	80	81.5
E-7	87.7	85.1	88.6	88.2	86.2	86.1	85.3	82.4	86.5	86.1	85	85.5	86.1	83.5	87.5	87.5	86.2	86.3
E-6	90.8	88.6	92.2	91.9	90.6	90.9	88.6	86.1	91.6	91.7	91.1	91.6	90	87.6	91.1	91.6	90.4	90.7
E-5	88.5	87.8	89.3	89.6	88.6	87.9	90.3	89.9	91.3	91.1	90.6	90.3	87.9	86.9	88.8	89.1	88.7	88.1
E-4	75.3	76.3	76.8	75.2	76.9	75.7	79.5	78.8	79.3	78.6	80.3	79.4	76.7	76.2	76.1	75.1	76.7	76.4
E-3	80.5	83.7	84.3	83.7	86.1	87.3	83.4	85.2	85.4	85.2	87.5	88.5	81.2	82.9	82.9	82.2	84.6	85.9
E-2	82	84.7	88.2	88.9	89.1	88.8	84.4	85.5	87.6	88.3	88.4	88.6	82	83.2	85.2	86	85.8	86.3
E-1	85.4	86.1	86.5	86.5	84.2	85.1	84.6	87.3	84.6	83.2	83.7	83.1	82.6	83.5	82.1	81.7	81	81.2
TOTAL ENLISTED	83.1	83.6	85.1	84.8	85	84.8	85.1	84.5	86.3	86.1	86.5	86.5	83.3	82.8	84.1	84.1	84.4	84.5
TOTAL	83.5	84.1	85.6	85.4	85.5	85.3	85.6	85.2	87	86.8	87.2	87.1	84.1	83.9	85.2	85.1	85.4	85.5

SURVEY

This survey has been written as a tool to gather information regarding the readiness of Naval Hospital Jacksonville and the impact deployments and training have on this facility. The information contained within this survey is for the completion of a Graduate Management Project in Healthcare Administration for Baylor University and is not intended for any other use. In order for me to obtain a random, anonymous sample, I am asking that you please print the document and check the blocks that apply. Upon completion of this survey, place it in one of the boxes located in the Public Affairs Office (2nd Deck), Education and Training (8th Deck), Medical Library (2nd Deck) or the Retiree Liaison Desk which is located in the Outpatient Building just across from Outpatient Records. The boxes are black and are labeled **"READINESS SURVEY"**. Closing date is 16 March. Thank You.

1. What is your employment category?
   - ❑ Civilian
   - ❑ Enlisted E-1 to E-5
   - ❑ Enlisted E-6 and above
   - ❑ Officer O-1 to O-3
   - ❑ Officer O-4 and above
   - ❑ N/A

2. If you are a civilian employee, are you a member of the Armed Forces Reserves?
   - ❑ Yes
   - ❑ No
   - ❑ N/A

3. What is your primary focus?
   - ❑ Clinical
   - ❑ Administrative
   - ❑ N/A

4. If you are a clinician responsible for administrative tasks, how many hours per week are spent on the administrative duties? (for the purposes of this survey administrative tasks include meetings, committees etc.; not time spent on patient charting, or other admin activities directly associated with patient care)
   - ❑ 1-5 hours
   - ❑ 6-10 hours
   - ❑ 11-15 hours
   - ❑ More than 15 hours
   - ❑ N/A

5. What is your current deployment platform?
   - ❑ Fleet Hospital
   - ❑ USS Nassau (LHA-4)
   - ❑ Other _____
   - ❑ Do not know
   - ❑ N/A

6. When was the last time you deployed for training?
   - ❑ March 2000
   - ❑ August 2000
   - ❑ October 2000
   - ❑ Other _____
   - ❑ Did not deploy for training in 2000
   - ❑ N/A

7. If you deployed for training, how much advanced notice were you given?
   - ❑ Less than 1 Week
   - ❑ 1-2 Weeks
   - ❑ 2-3 Weeks
   - ❑ More than 3 Weeks
   - ❑ N/A

8. How much time did the pre-deployment preparation (uniforms, inspections, briefs, meetings) take away from your daily clinic/administrative time?
   - ❑ 1 Day
   - ❑ 2 Days
   - ❑ 3 Days
   - ❑ More than 3 Days
   - ❑ N/A

9. How helpful were the pre-deployment inspections, meetings and briefs?
   - ❑ Extremely
   - ❑ Somewhat
   - ❑ Not Very
   - ❑ Not at all
   - ❑ N/A

10. Did you attend the Fleet Hospital Indoctrination & Orientation (I&O)?
    - ❑ Yes
    - ❑ No

11. Did I&O prove to be valuable when you arrived at Fleet Hospital and Operations and Training Center in California?
    - ❑ Yes
    - ❑ No

12. If you remained at NHJAX during any deployment training of other personnel, was the number of patient visits
    - ❑ Higher
    - ❑ Lower
    - ❑ The same

13. If you remained at NHJAX during any deployment training, did your work load
    - ❑ Increase
    - ❑ Decrease
    - ❑ Stay the same

14. If you remained at NHJAX during any deployment training, did the number of hours worked
    - ❑ Increase
    - ❑ Decrease
    - ❑ Stay the same

15. For those of you returning from deployment training, was your workload
    - ❑ Higher than before you left
    - ❑ Lower than before you left
    - ❑ Unchanged
    - ❑ N/A

16. If your workload was greater when you returned, how long did it take to return to a pre-deployment level?
    - ❑ Less than 1 Week
    - ❑ 1-2 Weeks
    - ❑ 2-3 Weeks
    - ❑ More than 3 Weeks
    - ❑ N/A

17. Was your work area augmented with Reservists during any deployment training?
    - ❑ Yes
    - ❑ No

18. Did the Reserve personnel make significant contributions?
    - ❑ Yes
    - ❑ No
    - ❑ Could have done without them

19. Overall, do you feel that the time spent on training/readiness in preparation for a real world contingency is
    - ❑ Too much
    - ❑ Too little

20. Do you feel the command places sufficient emphasis on deployment training and readiness?
    - ❑ Yes
    - ❑ No